

Work Plan for Meeting Legal Requirements for the California Water Plan Update 2005

Work Plan for Meeting Legal Requirements for the California Water Plan (Water Code Sections 10004-10011)

Water Code Section	Description	Completion Date
10004. (b) (1).	The department shall update The California Water Plan on or before December 31, 2003, and every five years thereafter.	Phase 1 – April 2005 Public Review Draft Phase 2 – Sept. 2005 Final Update 2005 Next Plan Update
10004. (b) (1).	The department shall report to the Legislature in the session in which the updated plan is issued; the amendments, supplements, and additions included in the updates of the California Water Plan, together with a summary of the department's conclusions and recommendations.	Phase 1 – April 2005 on Public Review Draft Phase 2 – Sept. 2005 on Final Water Plan
10004. (b) (2).	The department shall establish and consult with an advisory committee, comprised of representatives of agricultural and urban water suppliers, local government, business, production agriculture, and environmental interests, and other interested parties, to assist the department in the updating of The California Water Plan.	Done – Jan. 2001
10004. (b) (3).	The department shall release a preliminary draft of The California Water Plan, as updated, upon request, to interested persons and entities throughout the state for their review and comments. The department shall provide these persons and entities an opportunity to present written or oral comments on the preliminary draft. The department shall consider these comments in the preparation of the final publication of The California Water Plan, as updated.	Phase 1 – April 2005 Public Review Draft Phase 2 – June 2005 Public Hearings Phase 2 – Sept. 2005 Final Water Plan
10004.5.	The department shall include in the plan a discussion of various strategies, including, but not limited to, those relating to the development of new water storage facilities, water conservation, water recycling, desalination, conjunctive use, and water transfers that may be pursued in order to meet the future water needs of the state.	Phase 1 – April 2005 Public Review Draft (using available information for 25 resource management strategies) Phase 2 – Sept. 2005 Final Water Plan
10004.5.	The department shall include an identification of all federal and state permits, approvals, or entitlements that are anticipated to be required in order to implement the various components of the strategy.	Phase 1 – April 2005 Public Review Draft (using available information for 25 resource management strategies) Phase 3 – next update

10004.5 and 10004.6. (d).	The department shall include a discussion of the potential for alternative water pricing policies to change current and projected water uses.	Phase 1 – April 2005 Public Review Draft (Vol.2 Narrative on Economic Incentives - Loans, Grants and Water Pricing) Phase 2 – Sept. 2005 Final Water Plan
10004.6 (a).	As part of updating The California Water Plan every five years, the department shall...recommend programs, policies, and facilities to meet future needs.	Phase 1 – April 2005 (using available information for 25 resource management strategies) Phase 3 – next update (using new studies)
10004.6 (a).	As part of updating The California Water Plan every five years, the department shall conduct a study to determine the amount of water needed to meet the state's future needs and....	Phase 1 – April 2005 (using available information) Phase 3 – Dec. 2008 (using new studies)
10004.6 (b).	The department shall consult with the advisory committee established pursuant to subdivision (b) of Section 10004 in carrying out this Section 10004.6 (a): determining future needs and recommending programs, policies, and programs to meet those needs.	Phase 1 – Jan. 2001 – April 2005 Phase 2 – Jan. 2004 - Dec. 2005 (select analytical methods, data and tools) Phase 3 – Jan. 2006 - Dec. 2008 (conduct new studies)
10004.6. (c).	On or before January 1, 2002, and one year prior to issuing each successive update to The California Water Plan, the department shall release a preliminary draft of the assumptions and other estimates upon which the study will be based, to interested persons and entities throughout the state for their review and comments. The department shall provide these persons and entities an opportunity to present written or oral comments on the preliminary draft.	Preliminary Draft – Released Dec. 2001 Revised Draft – Released April 2005 with Public Review Draft (see attached table for details) 4 Workshops for Extended Review Forum Spring 2002
10005.1.	The department or, at the department's request, the California Water Commission, shall conduct a series of hearings with interested persons, organizations, local, state, and federal agencies, and representatives of the diverse geographical areas and interests of the state.	Phase 2 – June 2005 Conduct Public Hearings
10005.2.	Prior to holding the above hearings, the department shall give notice by mail of the hearings to persons and entities which have requested notice and have provided their name and address to the department.	Phase 1 – April 2005 For Public Review Draft (using distribution lists for Advisory Committee, Extended Review Forum and interested public – about 2,500 people)

10011. (a).	In preparing the California Water Plan, the director shall conduct at least one public hearing within the boundaries of the Sacramento-San Joaquin Delta, and shall solicit the comments of water agencies within the delta, agricultural groups representative of delta agricultural activity, environmental groups concerned with protecting delta wildlife habitat, and groups representative of those who utilize water exported from the delta.	Phase 2 – June 2005 Conduct Public Hearing
10011. (b).	The California Water Plan shall include a discussion of various alternatives, including their advantages and disadvantages, for improving and protecting the current uses and configuration of the Sacramento-San Joaquin Delta.	Phase 1 – April 2005 Public Review Draft (using available information for 25 resource management strategies and Delta Regional Report) Phase 2 – Sept. 2005 Final Water Plan
10013.	The department, as a part of the preparation of the department's Bulletin 160-03, shall include in the California Water Plan a report on the development of regional and local water projects within each hydrologic region of the state, as described in the department's Bulletin 160-98, to improve water supplies to meet municipal, agricultural, and environmental water needs and minimize the need to import water from other hydrologic regions.	Phase 1 – April 2005 Public Review Draft (12 Regional Reports in Volume 3 based on information compiled from regional planning efforts) Phase 2 – Sept. 2005 Final Water Plan
10013.	This report shall include, but is not limited to, regional and local water projects that use technologies for desalting brackish groundwater and ocean water, reclaiming water for use within the community generating the water to be reclaimed, the construction of improved potable water treatment facilities so that water from sources determined to be unsuitable can be used, and the construction of dual water systems and brine lines, particularly in connection with new developments and when replacing water piping in developed or redeveloped areas.	Phase 1 – April 2005 Public Review Draft (using available information on 25 resource management strategies and 12 Regional Reports) Phase 2 – Sept. 2005 Final Water Plan

Water Code Section	Description	Completion Date
Food and Agricultural Code Section 411	<p>(a) The Department of Food and Agriculture shall supply the Department of Water Resources with a forecast that estimates the amount of production of food, fiber, livestock, and other farm products.</p> <p>(e) The Department of Food and Agriculture shall furnish the forecast to the Department of Water Resources for estimating related water usage, as well as to the Chairs of the Assembly Committee on Agriculture, the Assembly Committee on Water, Parks, and Wildlife, and the Senate Committee on Agriculture and Water Resources. The Department of Water Resources shall include this information in Bulletin 160.</p>	<p>Phase 1 – April 2005 Public Review Draft</p> <p>(Vol.4 - UC Davis, Agricultural Issue Center Study Report (Interim response until DWR receives CDFA food forecast)</p> <p>Phase 3 – Dec. 2008 Complete study for Next Water Plan Update</p> <p>(assumes DWR receives CDFA food forecast)</p>

Schedule for Assumptions and Estimates Specified In the California Water Code Section 10004.6 For Current Conditions

Water Code Section	Description	Statewide Information Regional Information on Regional Reports Webpage www.waterplan10.water.ca.gov/regions			Completion Date
10004.6. (c).	The department shall release, at a minimum, assumptions and other estimates relating to all of the following:	1998	2000	2001	
10004.6. (c) (1).	Basin hydrology:				Phase 1 – April 2005 Water Portfolio Data for 1998, 2000, 2001 (with some data gaps)
	Annual rainfall	329.6 maf	187.7 maf	139.2 maf	
	Unimpaired runoff i	31.4+10.4 = 41.8 maf	18.9+5.9 = 24.8 maf	19.2+4.9 = 24.1 maf	
	Depletions ii	55.6 maf	39.9 maf	25.8 maf	
10004.6. (c) (2).	Consumptive uses iii	25.8 maf	28.6 maf	28.2 maf	
	Groundwater suppliesiv:				Phase 1 – April 2005 Public Review Draft (using available data)
	Sustainable yield estimates	U/A ^v	U/A	U/A	
	Overdraft recovery needs vi (annual GW deficit is shown)	1-2 maf	4-5 maf	9-10 maf	
10004.6. (c) (3).	Supplies lost to groundwater pollution	U/A			Phase 3 – Work on data gaps for next Update
	Current land use patterns vii:				Phase 1 – April 2005 Public Review Draft (using available data)
	Residential	U/A			
	Commercial				
	Industrial				
	Agricultural viiii (Irrigated crop acreage)	8.9 million acres	9.0 million acres	8.7 million acres	Phase 3 – Work on data gaps for the next update.
	Undeveloped lands	U/A			
10004.6. (c) (4).	Environmental water needs:				Phase 1 – April 2005 Public Review Draft (using available data)
	Regulated instream flow requirements ix	6.9 maf	7.5 maf	6.9 maf	
	Nonregulated instream flows	U/A			
	Wetlands and refuge needs x	1.4 maf	1.5 maf	1.3 maf	Phase 3 – Work on data gaps for the next update
	Managed natural resource lands	U/A			
	Unmanaged natural resource lands				

Water Code Section	Description	Statewide Information Regional Information on Regional Reports Webpage www.waterplan10.water.ca.gov/regions			Completion Date
		1998	2000	2001	
10004.6. (c) (5).	Current population ^{xi} :	32.9 million	34.1 million	34.8 million	Phase 1 – April 2005 Public Review Draft
10004.6. (c) (6).	Current urban water needs ^{xii} :				Phase 1 – April 2005 Public Review Draft
	Interior uses, single family dwelling	1.7 maf	2.1 maf	2.0 maf	(using available data)
	Exterior uses, single family dwelling	1.7 maf	1.9 maf	1.9 maf	
	Multifamily dwelling, all uses	1.4 maf	1.5 maf	1.5 maf	
	Industrial water uses	1.3 maf	1.6 maf	1.6 maf	
		Parks & open space uses	0.5 maf	0.6 maf	0.6 maf
10004.6. (c) (7).	On-farm applied water	0.6 maf	0.7 maf	0.6 maf	Phase 1 – April 2005 Public Review Draft
	Evapotranspiration rates for major crop types	24.1 maf	31.1 maf	31.2 maf	(using available data)
	Evaporative losses by irrigation practice	06 – 5.1 acre-ft/acre	0.6 – 5.3acre-ft/acre	0.4 – 5.2 acre-ft/acre	Phase 3–Work on data gaps for the next update.
	Evaporation impact on transpiration	U/A			
10004.6. (c) (8).	Adoption of agricultural conservation practices ^{xiii} .	U/A			Phase 1 – April 2005 Public Review Draft (Narrative on Agricultural Water Use Efficiency) Phase 3–Work on data gaps for the next Update
10004.6. (c) (8).	Adoption of urban conservation practices.	See footnote 13			Phase 1 – April 2005 Public Review Draft (Narrative on Urban Water Use Efficiency) Phase 3–Work on data gaps for the next update
10004.6. (c) (9).	Water supplies from water recycling and reuse (municipal) ^{xiv}	11.5 maf	8.4 maf	5.7 maf	Phase 1 – April 2005 Public Review Draft (using available data) Phase 3–Work on data gaps for the next update.

For Projected Conditions					
Water Code Section	Description	Scenario 1 Current Trends	Scenario 2 Less Resource Intensive	Scenario 3 More Resource Intensive	Completion Date
10004.6. (c).	The department shall release, at a minimum, assumptions and other estimates relating to all of the following:	Preliminary estimate of additional 2030 urban, agricultural and environmental water demands for these scenarios			Phase 1 – April 2005 Public Review Draft (Scenario 1 with available data) Phase 3 – Dec. 2008 (new studies for all scenarios)
10004.6. (c) (3).	Projected land use patterns				Phase 2 – Dec. 2005 (Select input data, analytical tools and assumptions)
	Residential	U/A			
	Commercial				Phase 3 – Dec. 2008 (new studies for all scenarios and responses for the next update).
	Industrial				
	Agricultural (irrigated crop acreage)	9.0 million acres	9.5 million acres	9.5 million acres	
	Undeveloped lands	U/A	U/A	U/A	
10004.6. (c) (5).	Projected population ^{xv}	48.1 million	48.1 million	52.3 million	Phase 1 – April 2005 Public Review Draft
10004.6. (c) (6).	Projected urban water needs ^{xvi}	11.9 maf	10.3 maf	14.7 maf	Phase 2 – Dec. 2005 (Select input data, analytical tools and assumptions)
	Interior uses, single family dwelling	U/A			Phase 3 – Dec. 2008 (new studies for all scenarios and responses for the next update)
	Exterior uses, single family dwelling				
	Multifamily dwelling, all uses				
	Commercial water uses				
	Parks & open space uses				
10004.6. (c) (8).	Adoption of agricultural conservation practices. ^{xvii}	All cost effective EWMPs in existing MOUs implemented by current signatories	All cost effective EWMPs in existing MOUs implemented by current signatories	All cost effective EWMPs in existing MOUs implemented by current signatories	Phase 2 – Dec. 2005 Update Agricultural Water Use Efficiency potential estimates using information from CALFED WUE Program & other studies)
10004.6. (c) (8).	Adoption of urban conservation practices. ^{xviii}	All cost effective BMPs in existing MOUs by current signatories	All cost effective BMPs in existing MOUs by current signatories	All cost effective BMPs in existing MOUs by current signatories	Phase 2 – Dec. 2005 Update Urban Water Use Efficiency potential estimates using information from CALFED WUE Program & other studies)
10004.6. (c) (9).	Water supplies from water recycling and reuse (municipal) ^{xix}				Phase 3 – Dec. 2008 (Include in management responses for new studies)

Table Footnotes

U/A – Information Unavailable.

ⁱ From Eight River Index

ⁱⁱ DWR, Statewide Water Balance Summary, Total Outflows to Salt Sink, Evaporation, and Irrecoverable Losses

ⁱⁱⁱ DWR, Statewide Water Portfolio, Evapotranspiration of Applied Water from Agricultural, Urban and Managed Wetlands Uses, including Ag Effective Precipitation

^{iv} Estimates of Sustainable Yield and Supplies Lost to Groundwater Pollution are not available due to the number of variables and complexity of making such estimates

^v Information is Unavailable

^{vi} DWR, Statewide Water Balance Summary, Estimates are shown for annual groundwater deficit by year. Whereas, overdraft is a long-term measure currently estimated at between 1 maf and 2 maf per year statewide (Bulletin 118-03)

^{vii} Land Use Patterns Statewide have not been compiled except for land in irrigated agricultural

^{viii} Compiled by DWR staff from Land Use Surveys and Reports from County Agricultural Commissioners

^{ix} DWR, Statewide Flow Diagrams, Total Required Instream Flows including flows returned to supply

^x DWR, Statewide Water Portfolio, Managed Wetlands Applied Water

^{xi} Department of Finance Projections

^{xii} DWR, Statewide Water Portfolio. Commercial use includes both industrial and commercial uses

^{xiii} DWR is not planning to develop information on which specific agricultural conservation practices are being used or to what level they are being adopted. Instead, DWR plans to ensure that the on-farm irrigation efficiencies, which are required to develop water use, are justifiable and agreed upon by the experts in the field. These irrigation efficiencies are an indicator of the level of water management, or conservation practices, being used.

^{xiv} Includes reuse by all sectors.

^{xv} Department of Finance projections – May 2004

^{xvi} To be developed in Phases 2 & 3 as data are available

^{xvii} To be developed in Phases 2 & 3 as data are available

^{xviii} To be developed in Phases 2 & 3 as data are available

^{xix} Developed from Water Portfolio data received from DWR Districts

